



Successfully Using PECS with Children with ASD

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PECS or Picture Exchange Communication System has been successfully used with many children with an autism spectrum disorder. Some will begin using PECS and then abandon the approach because they report that the child fails to make progress. One has to ask the question why this might have occurred. Pyramid Education Products, the developer of PECS, is very consumer friendly. If one had a question, one could use the Contact US function at the company site, <http://www.pecsusa.com>. One could also use the PECS listserv at <http://groups.yahoo.com/group/pyramid-pecs/> when any question about implementation might be posed. Of course, the first choice would be to check the Picture Exchange Communication System Training Manual (2002) which contains explicit information and data collection charts including a recent book chapter on generalization (Bondy and Frost, 2009). Many people either are unaware of these resources, do not access them, or are using a hybrid of the PECS program.

The focus of this article is to answer some basic questions that might guide further exploration about this approach to communication development. It is not meant to replace official responses from Pyramid Educational Consultants. The purpose is to raise awareness of some basic issues. A question and answer format is used in this article so readers can quickly find comments about specific questions. It might be helpful to review a description of the steps in the PECS program before reading this article; the steps are also briefly described in the IRCA article at <http://www.iidc.indiana.edu/irca/communication/WhatisthePEC.html>.

Should most or every children with ASD be enrolled in a PECS program?

PECS is a program to assist children to develop a communication system that allows them to meet various needs. Suitable candidates for the program include children who do not speak, who are unintelligible, or who are minimally effective communicators with their present communication system. The latter group may have an expressive vocabulary that is limited to a few words, word approximations, signs, or vocalizations. Some of these individuals may not be motivated to communicate, or they may struggle to use their limited communication skills. As part of PECS, pictures or objects can be used as symbols for messages that teach the child the power of effective communication. There is no reason to introduce this type of programming to a child who is a fairly verbal and effective communicator UNLESS the majority of verbal utterances used are echoed repetitions of the messages of others.

Is every nonverbal child a good candidate for PECS?

Although the PECS manual does not say a child should be an intentional communicator before beginning PECS, quick success might be more likely if the child is familiar with deliberately communicating his needs to others through gestures, pulling a person to a location, or giving an item to an adult for opening. With a child who has not made the cognitive leap to intentional communication, it might be helpful to spend time building a repertoire of gestures and body movements with a good rate of frequency before shifting to PECS which is symbol based. Or, one can do try the programming at the symbol level with PECS and backup toward gestural programming if the child does not

have an interest in PECs or show some progress.

A second situation where one might step back and do some other programming first is when a child has almost no interests or strong preferences for food, objects, or activities. This child may find flapping or some other self-initiated sensory activity more interesting than external stimuli. It can be helpful to spend some time trying to find out if the child really does have any food or object preferences and expand his/her interest in external objects that may provide a sensory sensation.

Why is a sense of intentionality an asset for programming?

Intentionality represents a major benchmark along the road to becoming a communicator. In typical children, this develops around the 9-12 month period. Intentionality indicates that the child can take an active role in making some things happen. He or she does not need to wait for someone to provide the right prompt or to initiate the interaction first so he can just respond. He/she indicates a desire or protest/refusal that is directed to someone. By contrast, the child who is non-intentional, may act out or help himself; the adult or other observers must notice the action and guess at its meaning. See the IRCA article, *Communicative Functions or Purposes of Communication*, for further explanation of this concept at <http://www.iidc.indiana.edu/irca/communication/communicatFun.html>. If the child is not intentional (i.e., used to communicating to adults) he may balk or struggle to learn the picture exchange in Stage 1 because he is used to just helping himself. If he learns the skills with firm assistance, it might be difficult to wean the physical support for the exchange to occur more spontaneously unless he grasps the notion of the power of the exchange routine. The precise outcome is individual specific, however.

Why might matching skills be an asset for programming?

In Stages 1 and 2 of the PECS program, the child has only one picture to remove from a Velcro strip and he/she does not need to really look at the picture symbol. Some children really fail at Stage 3 because they have not learned to look at the picture on the exchange card and are unable to match a symbol picture card to the real object that is being enticed. At Stage 3, the child gets the desired object only when he exchanges the correct card (from a choice of two) for the object. There are procedures for attempting to help the child overcome this problem, but some of the problems might be avoided. A personal recommendation of this author is to begin work on developing matching skills as a separate academic activity when the child is still at Stages 1 and 2. Transition to Stage 3 might then be fairly easy to accomplish. For suggestions about matching skill tasks, see the 2000 VHS tape entitled *One-On-One: Working with Low-Functioning Children with Autism and Other Developmental Disabilities* which is available from the CeDir Library at the Indiana Institute on Disability and Community (Indiana residents can call 800-437-7924).

Why is having a significant repertoire of interests an asset to programming?

The teaching of PECS does not begin until some preliminary assessments occur as described in the Frost & Bondy training manual. One of the important things that people seem to overlook is the need for what Frost and Bondy call "establishing a reinforcer hierarchy." The latter is really an inventory of highly motivating or reinforcing items that are of significant enough interest to justify student effort to engage in an exchange with a communication partner. It is so important to have pictures exchanged for items that the child REALLY wants and not what the adults might wish him/her to communicate (e.g., a request for bathroom use). It is also important to understand that these

strong preferences may/probably will change over time. Reinforcers have to be items that can be delivered within an enticement procedure as required by the program. For example, "I have chips." can be said as one chip is shown but while it remains out of reach of the child. Not all favored activities can be chosen for initial training. It would be more difficult to entice a favored activity such as washing the car unless one was able to be outside for the exchange since initially the reinforcement needs to occur fairly immediate after the exchange. The assessment procedure is very important to getting the programming moving on a successful path. Often people get discouraged because they have quickly moved ahead to Stages 3 and 4 without having a good base in Stage 1 and forget to re-probe for significant reinforcers. Generalization might be better if one has practiced requesting 15 different objects with five different people in three environments rather than three objects with one person in one environment.

Why should all PECS procedures be followed in Stage 1?

In Stage 1, the child's role is to initiate his/her request for a desired item and inherently learn the power of engaging in exchange and its consequences. He/she is learning to request a variety of objects from a variety of communication partners with varying facilitators in a variety of environments. He/she is learning that the same procedure of picking up a picture and giving it to the person who is enticing him with a favored item always results in the same outcome. That is powerful. Along the way, it is hoped that the facilitators are also cutting back on the degree of physical assistance needed so the child can make the appropriate exchange on his/her own. In Phase 2, there is a focused effort on reducing prompts to further support the concept of independent communication. Sometimes people initiate PECS without fully implementing all of the required elements and then wonder why it hasn't produced the desired outcome. If a child is not initiating on his own or has some concept of responsibility for his book, he probably does not belong at Stage 4 (i.e., using a sentence strip).

Why is the number of instances of practice each day important?

Just like with any other learned skill and cognitive association, practice is important. The PECs manual provides good data charts for tracking how the variables are addressed in each basic environment, (i.e., home and school). One can see if more training opportunities are needed for various communication partners. The data also allows providers to see if enough varied practice is occurring within the two basic environments. If a student is not making progress, then this component of programming must be evaluated. In the PECs manual, it is suggested that individuals have at least 30-40 practice units throughout the day and presumably some practice at home. This is very minimal compared to the amount of talking a verbal student does every day and even the minimal amount of practice recommended for students using other means of augmentative communication (i.e., 150 exchanges per day).

Does programming intensity and support need to be maintained after a child is communicating effectively with PECS?

Programming efforts in the communication area probably need to be monitored during the child's entire lifespan, but particularly during the school years, when services are more readily available. Just because a child reaches Stage 4 in PECS, (plugging a single word/picture into a sentence frame), the attitude cannot be "good enough; he has a functional communication system." PECS may have been a helpful approach toward making the first leap to effective communication, but staff and family need to continue to explore how to develop a long range system that

can effectively be employed as the individual ages into adulthood and communication needs change. Not only is on-going development something to be monitored but Howlin, Gordon, Pasco, Wade, and Charman, (2007) suggest that intensity and support may be needed to even maintain newly acquired skills in PECS.

Is PECS and “picture exchange” the same thing?

Some people may use “picture exchange” as a more descriptive term for PECS. PECS actually is a modified behavior analysis approach to development of a communication system. Conversely, some people say they are using PECS which is the copyrighted program when they are using the term “picture exchange” differently to refer to a non-copyrighted set of procedures. If the implementer has not had sufficient training in PECS, does not have access to the training manual and/or is not following defined procedures, the individual is probably not implementing PECS per se. On the other hand, “picture exchange” is a legitimate augmentative/alternative communication strategy but it means that the implementer may be teaching his/her own set of procedures that may or may not overlook some of the variables recognized by the PECS approach. “Picture exchange” can be a successful strategy without all the procedures of PECS. However, when well-planned programming is not working, re-evaluation of the program plan is always required. The bottom line is that when a child is identified as using PECS or “picture exchange,” one may wish to get clarification of which approach is being used.

Why would one want to use the procedure of “picture exchange” but not the formal PECS program?

Only individual interventionist providers can answer that question about a specific child. One possibility is that the child is reluctant/unmotivated to point to a picture on a typical augmentative communication display but is more attracted/motivated by the action of pulling a picture off the display and getting the feedback from the pulling action (i.e., dislodging the picture from the Velcro™ and the noise that he might hear from the Velcro™ release).

“Picture exchange” might be chosen for other individuals because they may be beyond single word displays such as used in Stages 1 and 2 of PECS. They may be more motivated by a multi-element display during the beginning stages of an intervention program and easily adapt to the notion of an exchange.

Additionally, if an individual understands the concept of using pictures to accomplish communication needs, he may not need the enticement aspect of PECS. (*Some children with ASD, on their own, figure out that they can use pictures to communicate to a parent.*) Or, a different child may wish to request things beyond the tangible objects that are part of the Step 1 program. For example, he may need symbols for people who are very important to him so he can inquire about their whereabouts, request actions, request other information, or an alphabet for attempted spelling of messages.

One would not stay with a pull-off system or “picture exchange” indefinitely however. Instead one would wean a child toward a more conventional augmentative device/display that is less bulky to transport and one that facilitates various communicative functions in addition to offering a spelling feature. Obviously, with the exception of the first reason which had a sole sensory basis, we are talking about children with more skills than the typical individual who might be a Stage 1 PECS user. The Interventionist will wish to keep both the option of PECS and “picture exchange” in their programming repertoire in order to have a good match with individual student need.

Summary

This article is intended to suggest points to consider when providing a PECS intervention. By contrast, a brief description of “picture exchange” was offered to explain why one might choose to use the form of “picture exchange” but not the PECS program. Information was also provided so that the interventionist could access more guidance about official PECS procedures and the programming plan when the PECS is the program option of choice.

Selected References

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